10207*19/2007

Figure 1.

X(k,i,n)
M
N
block i
b(i,n)
Field (n)
mcb(i,n-2)
X_{MC}(k,i,n-2)
MV
MVx
MVy
(M+h)
(N+v)
Search Window
b(i,n-2)
Field (n-2)

Figure 2.

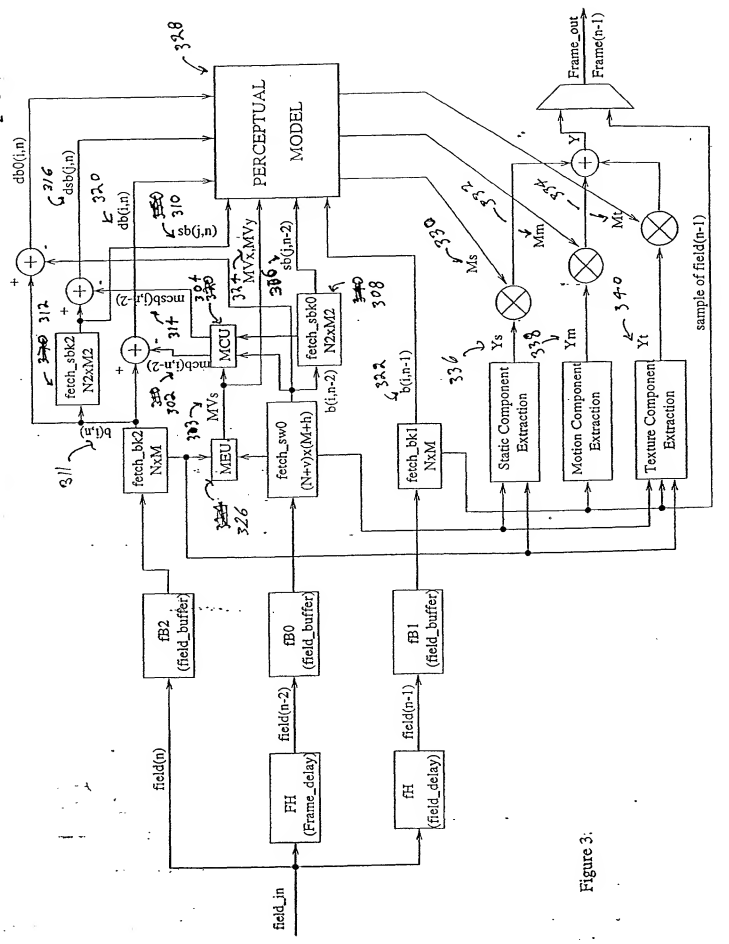
field_in
FH (Frame_delay)
fH (field_delay)
field(n)
field(n-1)
field(n-2)
fB2 (field_buffer)
fB0 (field_buffer)
fB1 (field_buffer)
fetch_bk2 NxM
fetch_sw0 (N+v)x(M+h)
fetch_bk1 NxM
MEU
MCU
fetch_sbk2 N2xM2
fetch_sbk0 N2xM2
PERCEPTUAL MODEL
Static Component Extraction
Motion Component Extraction
Texture Component Extraction
db0(i,n)
dsb(j,n)
db(i,n)
sb(j,n)
mcsb(j,n-2)
mcb(i,n-2)
MVx,MVy
sb(j,n-2)
b(i,n-2)
b(i,n-1)
MVs
Ys
Ym
Yt
Ms
Mm
Mt
Y
sample of field(n-1)
Frame_out
Frame(n-1)

Figure 3.

10220174.042001

Figure 4:

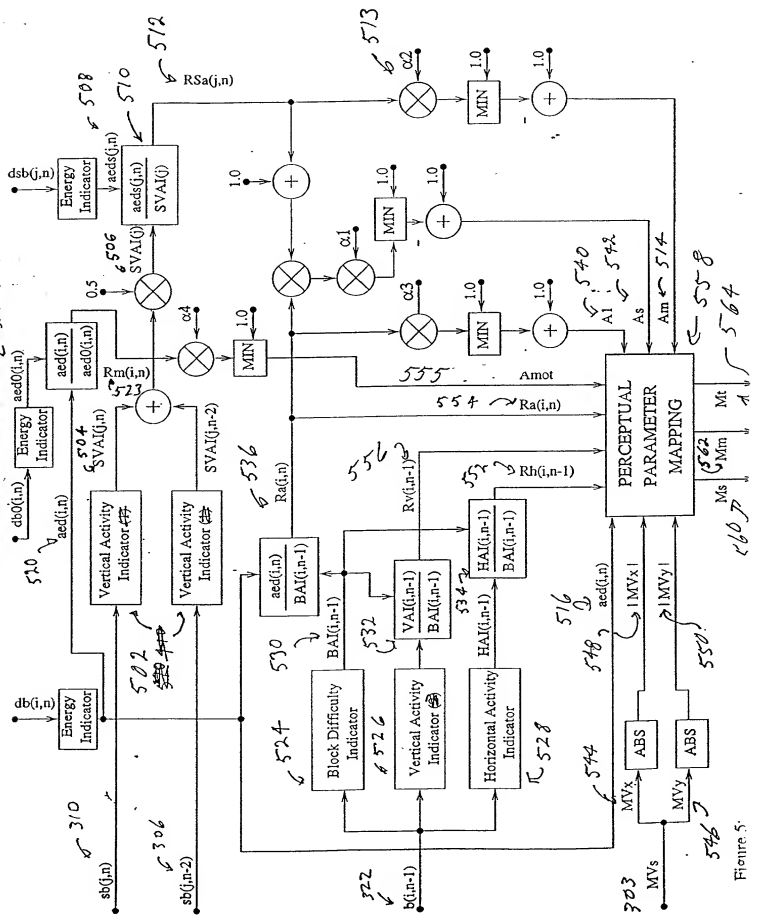
sb(j,n)
sb(j,n-2)
db(i,n)
dsb(j,n)
Energy Indicator
aed(i,n)
aed0(i,n)
aeds(j,n)
SVAI(j,n)
SVAI(j,n-2)
Vertical Activity Indicator
Rm(i,n)
RSa(j,n)
Ra(i,n)
Rv(i,n-1)
Rh(i,n-1)
BAI(i,n-1)
VAI(i,n-1)
HAI(i,n-1)
Block Difference Indicator
Horizontal Activity Indicator
ABS
MVx
MVy
MVs
MIN
Amot
PERCEPTUAL PARAMETER MAPPING
Mt
Ms
Mm
As
Am
A1
α1
α2
α3
α4
0.5
1.0

Figure 5

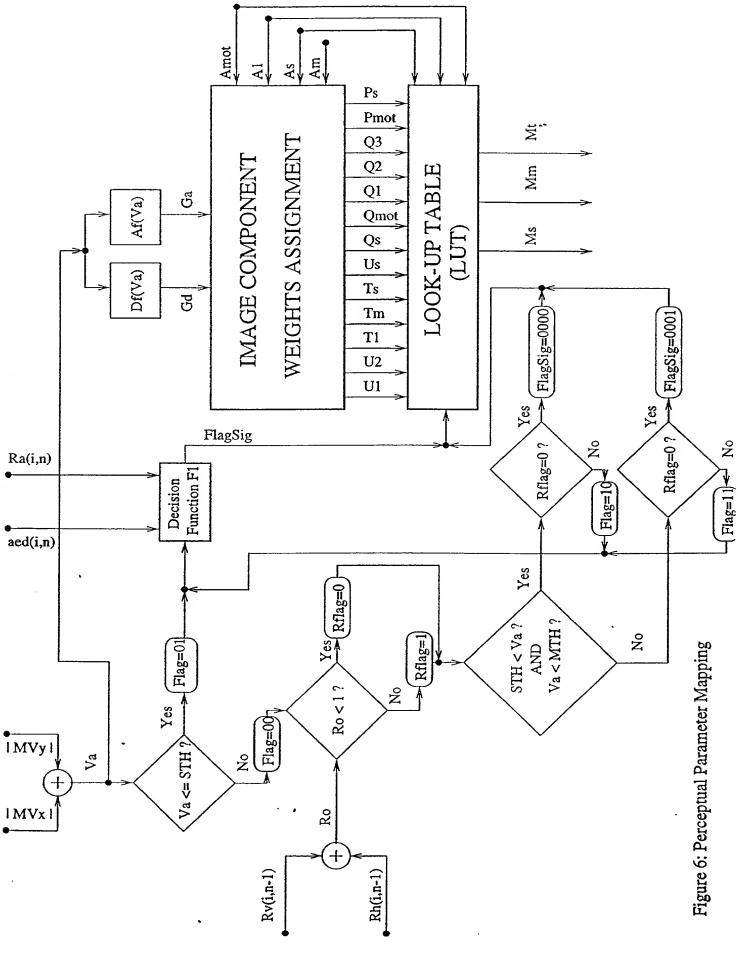

Figure 6: Perceptual Parameter Mapping

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FlagSig	Ms	Mm	Mf
0000	0	U2	Ts
0001	0	Q3	Amot
0100	A1	Q1	0
0101	0	Q2	As
0110	Ps	Q2	Qs
1000	T1	U1	0
1001	0	U2	Ts
1010	Tm	U2	Us
1100	Amot	Q3	0
1101	0	Q3	Amot
1110	Pmot	Q3	Qmot

Figure 7: One-to-one mapping between FlagSig and LUT Coefficients

Figure 8: Decision Function F1

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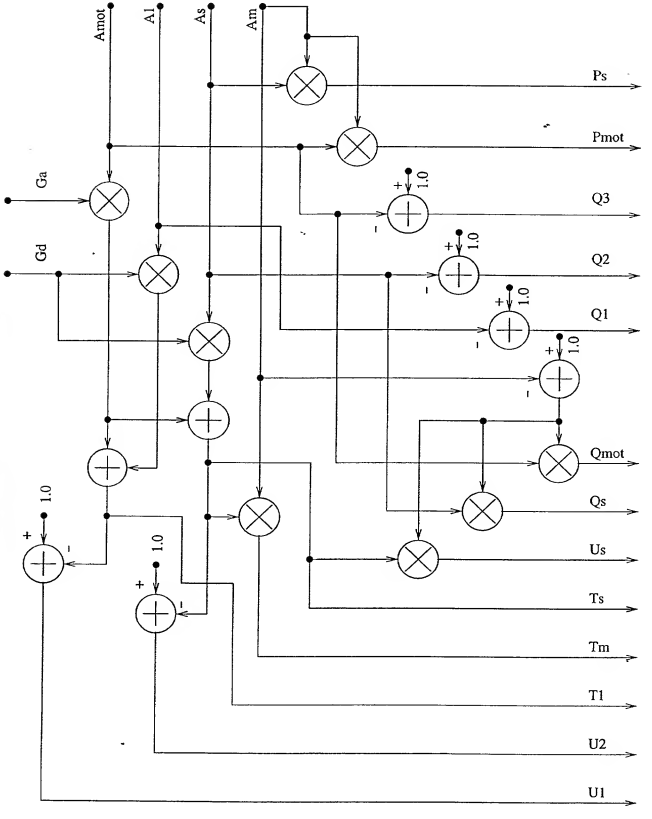

Figure 9: Image Component Weights Assignment